

ABSTRACT OF THE DISCLOSURE

A repeater system for transmitting and receiving RF signals to and from an area obstructed by a mountain, a building, etc. One antenna is linked to the base station antenna of, for example, a cell in a cellular network, and another antenna is directed to the obstructed area. Signals are received by one antenna from the base station antenna and digitally separated into a number of different frequency channels. The separated channels are then transmitted by the other antenna into the obstructed area to mobile users. Also, signals from the mobile users are received by one of the antennas and similarly digitally separated into different frequency channels and transmitted to the base station antenna for delivery to a communication network.

400020952-2004